

SOME HOMESPUN WISDOM ON RISK MANAGEMENT

“Never Bet More Than You Can Afford to Lose”

John Sweeney

The current idiom is *risk management* as contrasted to *risk aversion*, a heinous practice program managers have supposedly been practicing to avoid gambling on the future of their programs. The conventional wisdom is that through management of the risks, we can avoid the chance of failure. In a stochastic world, of course, there is no assured method of risk aversion.

Risk Assessment and Expected Value

The best statisticians could assure you is that they are 100 percent sure you will succeed at least none of the time; but that if you act prudently, you'll likely do better. For the theoretician, the answer lies in *risk assessment* and *expected value*.

The latest D.C. Lottery figures indicated a \$2 million jackpot with the odds of winning being 7 million to 1. Over a long period play, then, one would expect to get back about \$0.29 for every dollar invested — not much of an investment. The roulette wheel will return about \$0.94 on the dollar; matching for coffee should return a

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whole dollar for each invested. But intelligent risk management requires that we search for the gamble that the return will significantly exceed the investment — for example, the investment in a new tool or process under the assumption that it will markedly

reduce the cost of manufacture, generating higher profits. These, in turn, allow repayment of the investment and ultimately a higher profit.

Expected value is replaced with terms like *expected payback period* or

expected return on investment. Always there, the key term is *expected*. There are no guarantees and, while not universally true, the larger the pot, the larger the risk. Still, base decisions on *expected value* and over the long haul, you'll likely win.

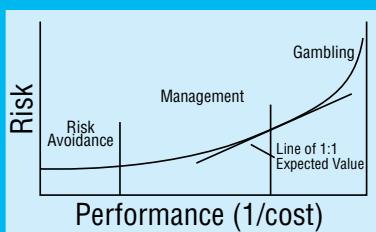
But there is more to it than just *expected value*. A key consideration is affordability. One hears the old saw, "Never bet more than you can afford to lose." Great wisdom abides in that statement. Another critical



consideration is down-side consequences—what happens if you lose? For example, a bet that, at worst, results in lunch at McDonald's versus the Ritz-Carlton would be much easier to make than one that could result in the loss of your home.

Risk vs. Performance

Let us look at the idea of risk management in greater detail. The following diagram depicts the idea that one can potentially achieve much greater returns if he or she accepts some degree of risk. Generally, the greater the potential return, the greater the risk - the red/black bet on the roulette wheel as opposed to betting the 00.



Both of these risks exist in the realm of the gambler. Over the long term, the investment is likely to exceed the returns. But for the instant bet, the gambler *could* win big. The line to the right depicts the limits of the physical world. Risk-avoiders, on the other hand, operate in the left-hand corner of the curve. They can't eliminate risk, but hesitate to go beyond the point where that risk increases because of their actions. In so doing, they have not realized the full capability that they could reasonably expect.

Risk managers work in the area of the curve where prudent management can provide an expected return from the increased risk that is greater than the likely cost; akin to getting 2 to 1 odds on a coin flip, or to investing in a machine that will return the investment over two contract periods, with five buys expected. A key role of managers here is to *understand* the risks being taken, to have every bit of data

that they can gather, and to ensure that they operate well clear of the boundary that separates risk managers from gamblers. While the current environment brands *oversight* with the same brush as *risk avoidance*, risk managers must have insight into the performance of their programs, and have the flexibility to take effective management action, as required, to prevent prudent risk from becoming a gamble.

Certainly the current environment encourages this idea. Countless seminar hours are spent discussing the need for risk identification, evaluation and control. The avowed risk-avoider is clearly persona non grata. Notwithstanding, old habits die hard. And while the avowed risk-avoider might be shunned, the closet risk-avoiders abound; that's the way they were raised. And in their defense, we really haven't reached accommodation with the truth - that *the risk-takers sometimes lose, while the dragons sometimes win*. Our tendency is to blame the program manager for inadequate *risk management*, rather than accept reverses as a normal consequence of playing the game. Moreover, rarely is any consideration given in the budgeting process for indemnity funding to protect against these reverses. This clearly is a barrier.

All that as it may be, we need to go for that extra performance that is available out there in the risk manager's realm. We just can't afford the luxury of financing a project up to the level of certitude demanded by the risk-avoider and sacrificing the potential under the risk manager's portion of the curve.

Payoff vs. Culture

Another is expected payoff period. In the case of the D.C. Lottery, playing weekly for 100 years, one's chance of winning would only have increased to 1 in 2,000. The success of the Lottery, in part, is affordability. One can buy hope for only a dollar a week. A second factor is *culture*. If society honors gamblers, applauds their success, and more importantly, forgives their losses, the entrepreneurial actor is nur-

tured. Playing the lottery is the "in thing," and few are chastised for losing.

The Ultimate Rub

Therein lies the ultimate rub for the poor program managers. The feeling is that if they failed, they must not have *managed* their risks properly. We will applaud their successes; but should they fail, we will take their heads. Despite all our good intentions, *sometimes the dragon wins!*